Mata Kuliah	: Bahasa Inggris Teknik (Teori)
Kode Mata Kuliah	: KKIG0012
Waktu	: Selasa (01.00 – 14.20)
Jumlah SKS	: 2 SKS
Nama Dosen	: Azwita Azyb
Minggu ke	: 7 (Tujuh)
Tanggal	: 27-10-2015
Judul Materi	: Describing Shapes

Objective :
After completing this lesson you will be able to :

- **identify angles**
- **identify 1-D Shapes, 2-D shapes, and 3-D shapes**

There are 3 kinds of shapes:

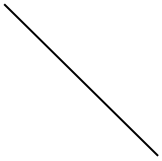
1. 1 - D Shapes

It has one dimension length. All 1-D shapes only have length. The only 1-D shape is a line, even a wavy one.

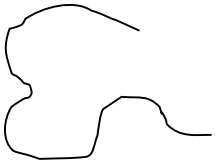
Point

Horizontal

Vertical



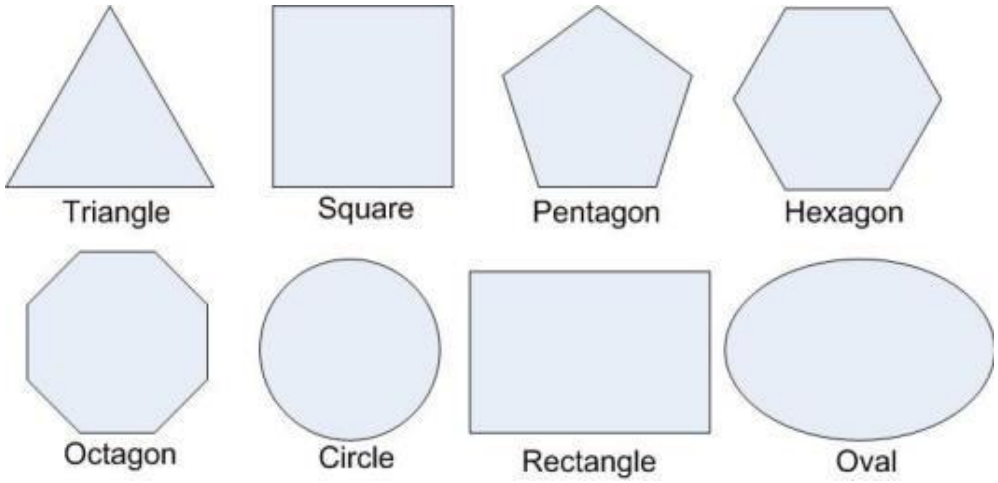
Diagonal



Curved

2. 2 – D Shapes

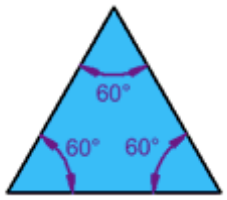
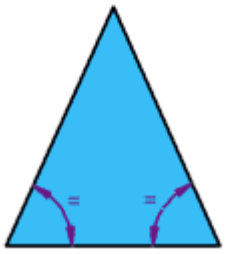
It has two dimensions – length and breadth. All 2 – D shapes have area but no depth (they are flat). Here are Some 2 – D shapes:



Triangles

A triangle has three sides and three angles. The three angles always add to 180°
There are three special names given to triangles that tell how many sides (or angles) are equal, that is **Equilateral, Isosceles and Scalene.**

There can be **3**, **2** or **no** equal sides/angles:

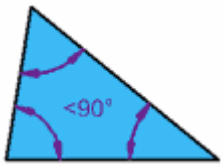
	**Equilateral Triangle** **Three** equal sides **Three** equal angles, always 60°
	**Isosceles Triangle** **Two** equal sides **Two** equal angles

Scalene Triangle

No equal sides
No equal angles

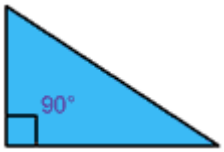
What Type of Angle?

Triangles can also have names that tell you what **type of angle** is inside*:*



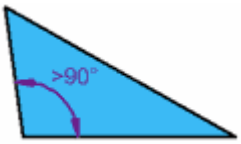
Acute Triangle

All angles are less than 90°



Right Triangle

Has a right angle (90°)



Obtuse Triangle

Has an angle more than 90°

Combining the Names

Sometimes a triangle will have two names, for example:

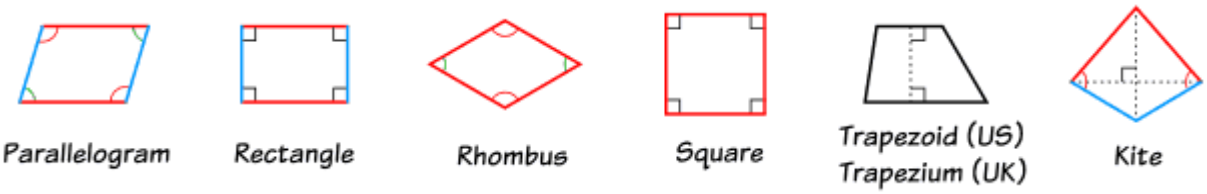
Right Isosceles Triangle

Has a right angle (90°), and also two equal angles

Can you guess what the equal

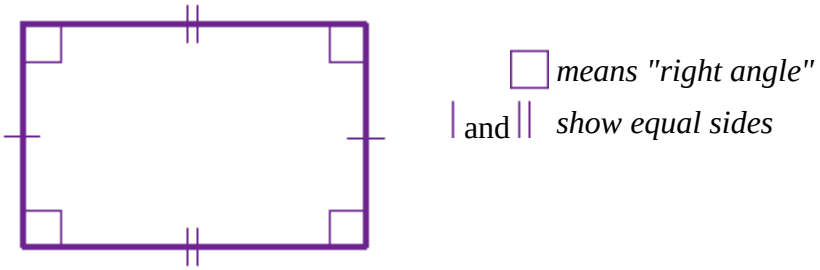
Any four-sided shape is a Quadrilateral.
Quadrilateral just means "four sides"
(*quad* means four, *lateral* means side).
But the sides have to be **straight**, and it has to be **2-dimensional**.

Types of Quadrilaterals
There are special types of quadrilateral:



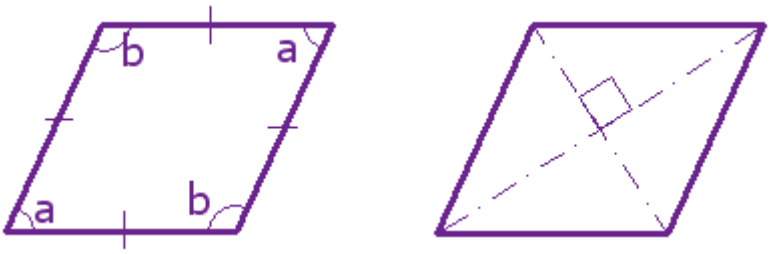
Some types are also included in the definition of other types! For example a **square**, **rhombus** and **rectangle** are also ***parallelograms***.

The Rectangle



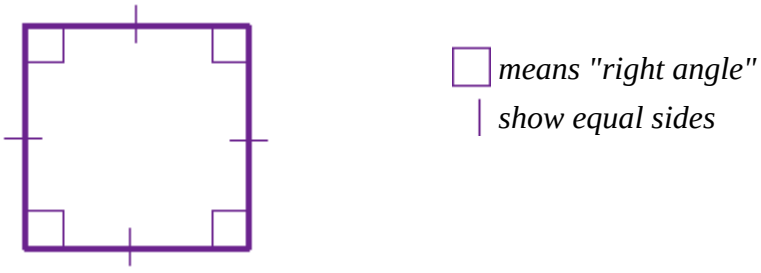
A **rectangle** is a four-sided shape where every angle is a right angle (90°).
Also **opposite sides** are parallel and of equal length.

The Rhombus



A **rhombus** is a four-sided shape where all sides have equal length.
Also opposite sides are parallel *and* opposite angles are equal.
Another interesting thing is that the diagonals (dashed lines in second figure) of a rhombus bisect each other at right angles.

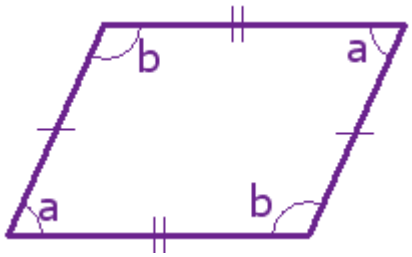
The Square



A square has equal sides and every angle is a right angle (90°)
Also opposite sides are parallel.

A square also fits the definition of a **rectangle** (all angles are 90°), and a **rhombus** (all sides are equal length).

The Parallelogram



Opposite sides are parallel and equal in length, and opposite angles are equal (angles "a" are the same, and angles "b" are the same)

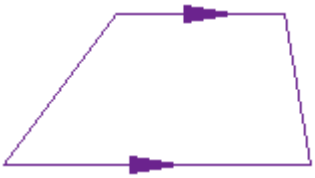
NOTE: Squares, Rectangles and Rhombuses are all Parallelograms!

Example:

A **parallelogram** with:

- all sides equal and
- angles "a" and "b" as right angles is a **square**!

The Trapezoid (UK: Trapezium)



Trapezoid

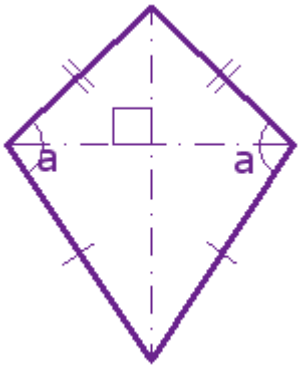
Isosceles Trapezoid

A trapezoid (called a trapezium in the UK) has one pair of opposite sides parallel.

It is called an **Isosceles** trapezoid if the sides that aren't parallel are equal in length and both angles coming from a parallel side are equal, as shown.

Language Note: In the US a "trapezium" is a quadrilateral with NO parallel sides!

The Kite

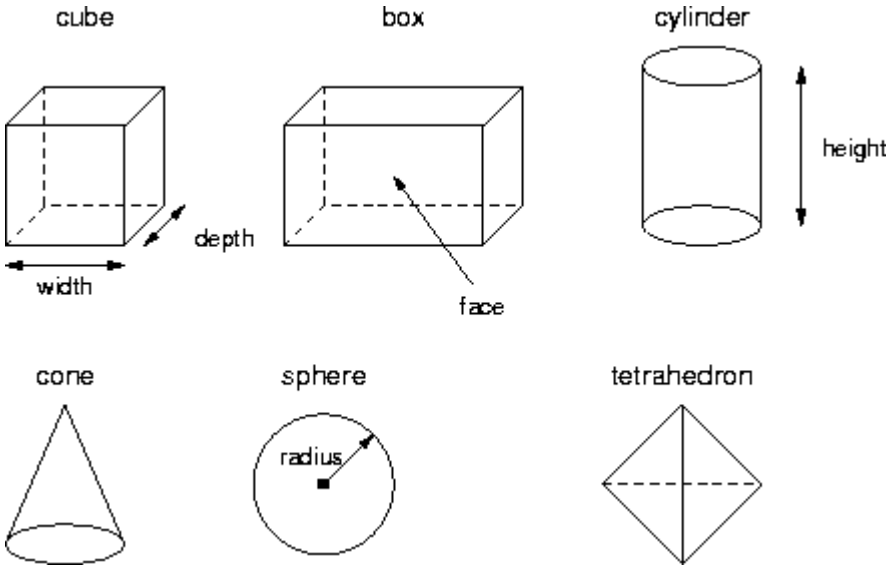


Hey, it looks like a kite. It has two pairs of sides. Each pair is made up of adjacent sides that are equal in length. The angles are equal where the pairs meet. Diagonals (dashed lines) meet at a right angle, and one of the diagonal bisects (cuts equally in half) the other.

3. 3 – D Shapes

It has three dimensions – length, height and depth. All 3 – D shapes are solid. Our world is usually three-dimensional. Most things we see and touch has height, depth, width, and weight.

Descriptions in science rely on three dimensions. Objects are spheres, not circles. It is important for us to know vocabulary for the three-dimensional world. We can then describe accurately what we are seeing. Here are Some 3 – D shapes :



Point to Remember